

Listing of the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A system for generating forward error correction (FEC) packets in a time division multiple access (TDMA) system, comprising:
 - a first FEC encoder that receives data and encodes first FEC data with the data to form FEC encoded data;
 - a payload packet formatter that formats the FEC encoded data into a data packet and delivers the data packet to a TDMA time slot;
 - a second FEC encoder, in parallel with the payload packet formatter, that encodes the FEC encoded data to produce second FEC data; and
 - an FEC packet formatter, in parallel with the payload packet formatter, that formats the second FEC data into an FEC packet;
 - wherein the second FEC encoder and the FEC packet formatter are only utilized when an additional TDMA time slot is available for the FEC packet.
2. (currently amended) The system for generating FEC packets set forth in claim 1, wherein the ~~FEC packet is inserted into~~ additional TDMA time slot is an otherwise empty time ~~division multiple access (TDMA)~~ TDMA time slot.
3. (currently amended) The system for generating FEC packets set forth in claim 2, wherein a header associated with the data packet contains information associating the data packet with the ~~second FEC data~~ packet contained in the otherwise empty TDMA time slot.
4. (original) The system for generating FEC packets set forth in claim 2, wherein a location corresponding to the otherwise empty TDMA time slot is predetermined by a TDMA master.
5. (canceled)

6. (original) The system for generating FEC packets set forth in claim 1, wherein the second FEC encoder employs a systematic block code to produce the second FEC data.
7. (original) The system for generating FEC packets set forth in claim 1, wherein the FEC packet is ignored by a receiver to conserve power.
8. (currently amended) A system for decoding a forward error correction (FEC) packet, comprising:
 - a first FEC decoder that receives an FEC packet containing first FEC data and a data packet containing a data payload and second FEC data, and an FEC packet and decodes the first FEC decoder partially decoding the data payload and second FEC data contained in the data packet using the first FEC data contained in the FEC packet ~~to produce partially decoded data~~; and
 - a second FEC decoder that receives the partially decoded data payload and second FEC data and further decodes the data payload based on the second FEC data ~~contained in the data packet~~.
9. (original) The system for decoding the FEC packet set forth in claim 8, further comprising:
 - a header decoder to decode a header associated with the data packet and identify the FEC packet.
10. (original) The system for decoding the FEC packet set forth in claim 8, wherein the FEC packet is received from a predetermined time division multiple access (TDMA) time slot.
11. (original) The system for decoding the FEC packet set forth in claim 10, wherein a location corresponding to the TDMA time slot is predetermined by a transmitter.

12. (original) The system for decoding the FEC packet set forth in claim 8, wherein the FEC packet is ignored by a receiver to conserve power.
13. (currently amended) A method of processing forward error correction (FEC) packets, the method comprising the steps of:
 - receiving a data packet that contains data and first FEC data;
 - receiving an FEC packet that contains second FEC data; and
 - deciding whether to use the second FEC data to process the data.
14. (currently amended) The method set forth in claim 13, further comprising the step of:
 - processing the data using second FEC data to produce partially decoded data.
15. (currently amended) The method set forth in claim 14, further comprising the step of:
 - processing the partially decoded data with first FEC data.
16. (currently amended) The method set forth in claim 15, wherein the recited ~~aets~~ steps are performed in the recited order.
17. (currently amended) The method set forth in claim 13, further comprising the step of:
 - processing the data using only the first FEC data.
18. (currently amended) The method set forth in claim 17, wherein the recited ~~aets~~ steps are performed in the recited order.
19. (currently amended) The method set forth in claim 13, further comprising the step of:
 - ignoring the second FEC data to conserve power.
20. (currently amended) The method set forth in claim 13, wherein the recited ~~aets~~ steps are performed in the recited order.